

Summary of Supporting Documents 2, 3 and 4

In an effort to provide the Board with the information requested at the November 9, 2005 Board meeting, relevant documents are being provided in electronic format on the following three CD's:

Disc 1 : Storm Water Management Plan for San Marcos Highlands, August 18, 2005.

Disc 2 : a. Final Environmental Impact Report San Marcos Highlands Specific Plan, September 1990.
b. Supplemental Environmental Impact Report, San Marcos Highlands Specific Plan, November 2001.

Disc 3 : a. San Marcos Highlands Habitat Mitigation and Monitoring/ Water Quality Management Plan, October 2005.
b. Supplemental Documentation for San Marcos Highlands Clean Water Act 404(b)(1) Alternatives Analysis, September 2005.
c. San Marcos Highlands Cumulative Impacts Analysis – Aquatic Resources, June 2004.

All files are in the Adobe Acrobat format (pdf) and require the Adobe Acrobat Reader to view the documents.

1. Storm Water Management Plan for San Marcos Highlands (Disc 1)

At the November meeting Regional Board members expressed concern that they did not have adequate information to determine if impacts to water quality from the resulting increase in impervious surface were being addressed by the proposed project. Opponents of the project expressed concern that removal of man-made pond and construction of the project would result in increased downstream erosion. A request was also made by the Regional Board for the opportunity to review the Hydrologic modeling conducted for the project.

The San Marcos Highlands project will implement a treatment train of structural BMPs to treat urban runoff generated from the project at build out, including a vegetated extended detention basin, and inlet filters on every catch basin within the site.

The pages of this report are not numbered, so references are made to Chapter numbers, and Adobe Acrobat Reader page number.

Overview

- a. Chapter 1- Executive Summary: pages 9 – 14
- b. BMP Location Map: page 15

Modeling

- c. Chapter 4 - Conditions of Concern: Pages 26-29 summarizes the results of hydrologic modeling performed for the project.
- d. Section 4.8 –Existing Condition Rational Method Analysis: pages 60 – 138
- e. Section 4.9 – Developed Condition Rational Method Analysis: pages 139 – 538
- f. Section 4.10 – Detention Basin Analysis (HEC-HMS, HEC-RAS): pages 537 – 634

BMP Details

- g. Chapter 5 – Volume Based BMPs (Basin): pages 637-641
- h. Chapter 6 – Flow Based BMPs (Filters): pages 642 - 648

2. CEQA Documentation (Disc 2)

During the discussion portion of the November hearing some Regional Board members expressed concerns with the CEQA process for the San Marcos Highlands process and expressed an interest in reviewing the CEQA documents prepared for the project.

Final EIR (1990)

In 1990 the City of San Marcos certified an Environmental Impact Report (EIR) for the San Marcos Highlands Specific Plan. The original project description included the development of 275 detached single-family units and included two road crossings across Agua Hedionda Creek. The man-made pond in the creek would have been retained, and the dam reinforced to meet State dam safety standards.

Cumulative impacts for biological resources and hydrology were not addressed in this document.

- a. Hydrology discussion: pages 4-89 to 4-109
- b. Biological Resources discussion: pages 4-41 to 4-56
- c. Alternatives: pages 9-1 to 9-5

Supplemental EIR (2001)

A proposed amendment to the specific plan was submitted to the City of San Marcos in 1998. In 2001 the City decided to authorize the preparation of a supplemental EIR (SEIR). Among other things, this SEIR addressed “the passage of new laws, regulations and policies in the areas of biological habitat planning, endangered species, water quality,

storm water runoff, zoning, land use planning and other topics since the release of EIR 90-13.” Changes in the project description included a reduction in housing units from 275 to 230.

Cumulative Impacts are discussed briefly at the end of each discussion section. Hydrology/Water Quality and Biological Resources are not addressed in Chapter 6.0 of the SEIR (Cumulative Project Impacts).

- d. Executive Summary Table 1-1 (Summary of Significant Impacts and Mitigation Measures): pages 1-5 to 1-17
- e. Hydrology and Water Quality: pages 4.7-1 to 4.7-6
- f. Biological Resources: pages 4.3-1 to 4.3-11

3. Cumulative Impacts Analysis (Disc 3)

In 2004, at the request of the Army Corps of Engineers, the project applicants prepared a cumulative impacts analysis for aquatic resources contained within the Agua Hedionda Creek watershed. Though somewhat outdated, the report is a good summary of the cumulative impacts that have occurred in the watershed over the last 10 years. Data used to prepare the analysis was culled from Army Corps, CA Fish & Game, U.S. Fish & Wildlife Service, and Regional Board data.

The proposed impacts to jurisdictional waters contained in this analysis differ slightly from the project as currently proposed due to further revisions in the project description since 2004.

- a. Cumulative Impact Analysis (31 Pages)

4. CWA Section 404(b)(1) Alternatives Analysis – San Marcos Highlands

At the November Regional Board meeting opponents to the project stated that the applicant had not considered alternatives to the proposed project, like bridging Agua Hedionda Creek or developing the project under County zoning standards. As part of the applicants 404 permit process, the applicant was required to perform an alternatives analysis, which discussed a variety of on-site and offsite alternatives, and is provided on **Disc 3**. On-site Alternatives discussed include:

- a. Preferred Alternative: pages 23-25
- b. Span- Bridge Alternative: page 25
- c. Further Reduced Impacts to Ephemeral Drainages: page 25
- d. County Standard Zoning Alternative: pages 26-27

5. Habitat Mitigation and Monitoring/ Water Quality Control Plan

At the November 9 meeting, the Board heard public testimony that the proposal to remove the man-made pond on Agua Hedionda Creek and restore natural streambed conditions should be reconsidered. The request to remove the pond and restore natural stream conditions was made jointly by multiple resource agencies, including California Department of Fish and Game and the U.S. Army Corps of Engineers. In considering the opponent's concern that documentation was lacking to support the recommendation, the Board questioned the effects of converting the pond to a natural streambed configuration.

When reviewing section 401 applications, the restoration of a natural waterbody to a more natural condition is generally recommended because hydromodification resulting from a dam adversely affects the aquatic and riparian functions of a watercourse. In our region, a waterbodies position in the watershed (because of the resulting hydrology flow regime) strongly affects the conditions of surface waters to which native species have adapted. It also is the basis for what functionality a waterbody provides to the watershed as a whole. For instance, species native to intermittent streambed areas are adapted to survive under those conditions. When waterbodies are modified to provide substantially different habitats, conditions can become favorable for non-native species, many of which prey on or out-compete native species. For example, bullfrogs are attracted to perennial waters. They are however, major predators on red-legged frogs (*Rana arora dratonii*) and arroyo toad (*Bufo californicus*), both of which are Federally-listed species native to intermittent stream conditions.

Removing artificial impoundments in order to restore natural waterbody conditions is in most instances an effective way to restore ecosystems and associated beneficial uses. Impoundments fragment streambed habitats and thus restrict migration of water-dependant species, such as invertebrates, amphibians, and fish. Impoundments also affect material transport, generally in a negative way. While impoundments may prevent some pollutants from reaching downstream areas, such retention may also create localized conditions of pollution. Furthermore, impoundments in low-order streams (headwater locations) can degrade important functions, such as export of organic carbon and coarse sediments, specifically associated with streams in that landscape position.

Restoring natural stream conditions is also consistent with Federal Policy (Clean Water Act), and the State Board Strategic Plan's Goal to support healthy ecosystems. As a result in this instance concerning Agua Hedionda Creek, it is recommended that the man-made pond be removed to restore the natural conditions of the streambed and riparian area.

Disc 3 contains the Habitat Mitigation and Monitoring Plan for restoring Agua Hedionda Creek to a more natural stream condition.

- a. Executive Summary: pages ES-1 to ES-2

- b. Section 3 – Project Impacts: pages 13 – 16, provides a discussion of the functional loss of ephemeral drainages.
- c. Section 4 – Mitigation Measures: pages 21-23, describes goal of mitigation
- d. Section 4.3.4: pages 25 – 29 discusses expected functional gain of mitigation.
- e. Section 5.0 - Implementation Plan: pages 36 – 43
- f. Section 7.0 - Success Criteria: pages 62 – 68, discusses functioned based success criteria used to evaluate mitigation success